

Notice of Allowability

Application No.

10/032,284

Examiner

Karla Moore

Applicant(s)

CHEN ET AL.

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 8/23/04.
2. ☒ The allowed claim(s) is/are 23,31-34,36-40,45,47,48,63,64,66,67 and 130-133.
3. ☒ The drawings filed on 12/21/01,7/16/04 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 0804,1004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 23, 31-34, 36-40, 45, 47-48, 63-64, 66-67 and 130-133 are allowed.
2. The following is an examiner's statement of reasons for allowance: With respect to claims 23 and 31-33, the prior art of record fails to teach or fairly suggest the flow section ratios as defined in the claims. The art fails to teach the formula for the ratio as recited or specific enough dimensions to determine whether or not the invention achieves the ratios as recited. Additionally, no other piece of prior art was found that provided the teaching and the appropriate motivation for combining the teaching with the cited prior art.
3. With respect to claims 34 and 36-40, the prior art of record fails to teach or fairly suggest the relationship of chamber volume to substrate size as claimed as defined in the claims. Additionally, no other piece of prior art was found that provided the teaching and the appropriate motivation for combining the teaching with the cited prior art.
4. With respect to claims 45, 47-48 and 130-133, the prior art of record fails to teach or fairly suggest the one or more gas conduits having an inner diameter that increases toward the expanding channel. Additionally, no other piece of prior art was found that provided the teaching and the appropriate motivation for combining the teaching with the cited prior art.
5. With respect to claims 63-64 and 66-67, the prior art of record fails to teach or fairly suggest the chamber additionally comprising one or more gas conduits coupled to the expanding channel, wherein a longitudinal axis of at least one of the one or more gas conduits is not parallel to a longitudinal axis of the expanding channel, and wherein the one or more gas conduits have valves. Additionally, no other piece of properly combinable art was located that fairly suggested these features along with the requisite motivation.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

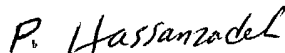
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 571.272.1439. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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15 November 2004


Parviz Hassanzadeh
Primary Examiner
Art Unit 1763